

38 000 8/15/08 [0117] 000 8/15/08
On page 37-28, please amend paragraph [077] as follows:

[0117] While multiple individual counter circuits could be used to implement the interrupt and descriptor timers for multiple channels (e.g., 64 virtual channels), such a solution would consume valuable chip area and would increase the system complexity, especially where independent and different time-out settings are required for multiple channels. Accordingly, an exponential channelized timer is advantageously used in connection with multi-channel, multiprocessor applications such as depicted in Figures 3-5 to efficiently provide a programmable timer with individual time-out settings for multiple channels. In a selected embodiment, an exponential channelized timer monitors a selected bit position of a free-running timer and generates a pulse whenever a transition is observed at that bit location. In this embodiment, the time-out values that can be set are exponential values (power of 2), so the exponential channelized timer acts as an interval timer where the timer accuracy goes down as the interval increases. For example, if an exponential channelized timer for a particular channel is programmed to monitor bit location number five of a free running 32-bit counter, then the time-out will be generated within a time interval of 32 (2^5) and 63 (2^6-1), reflecting the fact that the free running timer is not reset with each first packet. As will be appreciated, this interval increases exponentially as the monitored bit location register becomes more significant. Therefore, the timer gets less accurate as this value is increased. However, by using multiplexers and control registers for each channel, the exponential timer can be used to generate time-outs for multiple channels without requiring long timer counters for each channel, using only a single free running counter. The timer module 330 can be implemented by the structures disclosed in copending U.S. patent application entitled "Exponential Channelized Timer" by K. Oner, Ser. No. _____, filed _____, Serial No. 10/684,916, filed 10/14/2003, and assigned to Broadcom Corporation, which is also the assignee of the present application, and is hereby incorporated by reference in its entirety.